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10/035,653	12/28/2001	Jerry L. Mizell	14686RRUS01U	4122

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EXAMINER
POPHAM, JEFFREY D

ART UNIT	PAPER NUMBER
2137	

DATE MAILED: 09/07/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

	Application No.	Applicant(s)
Office Action Summary	10/035,653	MIZELL ET AL.
	Examiner	Art Unit	
	Jeffrey D. Popham	2137	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) FROM
THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed
after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any
earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on _____.

2a)☐ This action is **FINAL.**   2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is
closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-39* is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-39* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *28 December 2001* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All   b)☐ Some * c)☐ None of:

        1.☐ Certified copies of the priority documents have been received.

        2.☐ Certified copies of the priority documents have been received in Application No. _____.

        3.☐ Copies of the certified copies of the priority documents have been received in this National Stage
application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date *20030318*.

4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ .

5) ☐ Notice of Informal Patent Application (PTO-152)

6) ☐ Other: _____ .

Remarks

Claims 1-39 are pending.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that

form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

1.   Claims 1-4, 15, 16, and 19 are rejected under 35 U.S.C. 102(e) as being

anticipated by Gunter (U.S. Patent 6,751,728).

Regarding Claim 1,

Gunter discloses a method of authenticating an originator of a

packet in a network, comprising:

Filtering the packet for a tag embedded therein (Column 8, lines 22-

40);

Reading contents of the tag including an address of the originator

and an encrypted hash (Column 8, lines 22-40);

Decrypting the encrypted hash included in the tag (Column 8, lines

22-40);

Calculating a second hash from the address of the originator

(Column 8, lines 22-40); and

Authenticating the originator of the packet upon determining the

decrypted hash and the calculated hash are identical (Column 8, lines 22-

40).

Regarding Claim 2,

Gunter discloses that reading contents of the tag including an

address of the originator further comprises reading contents of the tag

including a uniform resource locator of the originator (Column 8, lines 22-

40). A URL is simply the mnemonic representation of an IP address.

Regarding Claim 3,

Gunter discloses that decrypting the encrypted hash included in the

tag further comprises decrypting the encrypted hash with a public key

assigned to the originator (Column 7, lines 33-52).

Regarding Claim 4,

Gunter discloses that calculating a second hash from the address

of the originator further comprises calculating the second hash from an

instance of a hashing algorithm used by the originator to generate the

encrypted hash (Column 8, lines 22-40).

Regarding Claim 15,

Gunter discloses a node in a network for authenticating an

originator of a packet, comprising:

A processing unit (Column 3, lines 34-53);

A memory unit operable to store an authentication algorithm therein

that is executable by the processing unit (Column 4, lines 7-22); and

An interface to a network operable to receive the packet, the

authentication algorithm operable to filter the packet for a tag embedded

therein, decrypt an encrypted hash in the embedded tag, calculate a hash

from an address of the originator in the tag, and authenticate the originator

upon a comparison between the decrypted hash and the calculated hash

(Column 8, lines 22-40).

Regarding Claim 16,

Gunter discloses an instance of a hashing algorithm executable by

the processing unit (Column 8, lines 22-40), a second instance of the

hashing algorithm executable by the originator of the packet and operable

to generate an encrypted hash (Column 7, lines 33-52).

Regarding Claim 19,

Gunter discloses that the address of the originator is a uniform

resource locator of the originator (Column 8, lines 22-40).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set
forth in section 102 of this title, if the differences between the subject matter sought to be patented and
the prior art are such that the subject matter as a whole would have been obvious at the time the

invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

2.   Claims 5, 8, 10-14, 17, 18, 20, and 23 are rejected under 35 U.S.C. 103(a) as

being unpatentable over Gunter in view of Blott (EP 1,054,529 A2).

Regarding Claim 5,

Gunter does not disclose specifying a billing treatment for the

packet upon authentication of the originator.

Blott, however, discloses specifying a billing treatment for the

packet upon authentication of the originator (Page 7, Paragraphs 36-39).

It would have been obvious to one of ordinary skill in the art at the time of

applicant's invention to incorporate the network usage billing system of

Blott into the authentication system of Gunter in order to allow the system

to modify and monitor a user's quality of service and provide appropriate

billing for such usage (e.g. a user that has the highest QoS level will pay

more than a use with a lower set QoS level).

Regarding Claim 8,

Blott discloses that specifying a billing treatment for the packet

upon authentication of the originator further comprises interrogating a

database of billing treatment directives, the database including a record

containing the address of the originator and an associated record

specifying the billing treatment (Page 7, Paragraphs 36-39).

Regarding Claim 10,

Blott discloses that interrogating the database further comprises:

Supplying the database with the address of the originator read from

the tag contents, the address of the originator indexing the record

containing the uniform resource locator (Page 7, Paragraphs 36-39); and

Calculating a tariff for the data session based upon the contents of

the call detail record (Page 9, Paragraph 50).

Regarding Claim 11,

Blott discloses generating a call detail record having a traffic

volume count of a data session that includes the packet (Page 5,

Paragraph 28); and

Calculating a tariff for the data session based upon the contents of

the call detail record (Page 9, Paragraph 50).

Regarding Claim 12,

Blott discloses that calculating a tariff for the data session further

comprises calculating the tariff and levying the tariff against the originator

of the packet (Page 5, Paragraph 28; and Page 9, Paragraph 50).

Regarding Claim 13,

Blott discloses that calculating a tariff for the data session further

comprises parsing the traffic volume count from other traffic volume

counts included in the call detail record, the calculated tariff calculated for

the parsed traffic volume count independently of the other traffic volume

counts (Page 5, Paragraph 28; and Page 9, Paragraph 50).

Regarding Claim 14,

Blott discloses that generating a call detail record having a traffic

volume count further comprises generating a call detail record having the

traffic volume count and the address of the originator associated therewith

(Page 5, Paragraph 28).

Regarding Claim 17,

Blott discloses an accounting algorithm executable by the

processing unit and operable to generate a call detail record including a

traffic volume count of a data session including the packet (Page 7,

Paragraphs 36-39).

Regarding Claim 18,

Blott discloses that the call detail record further includes the

address of the originator in association with the traffic volume count (Page

7, Paragraphs 36-39).

Regarding Claim 20,

Blott discloses a database having a record maintaining an

identification of the originator and an associated record having a traffic

treatment specification, the node operable to condition the packet such

that the network forwards the packet according to the traffic treatment

specification (Page 4, Paragraph 22; and Page 7, Paragraphs 36-39).

Regarding Claim 23,

Blott discloses that the node is operable to forward the call detail

record to a second node in the network operable to perform billing

procedures on the contents thereof (Page 9, Paragraph 50).

3.   Claims 6, 7, 9, 21, and 22 are rejected under 35 U.S.C. 103(a) as being

unpatentable over Gunter in view of Blott, further in view of Nichols (Nichols et al.,

"Definition of Differentiated Services Field (DS Field) in the IPv4 and IPv6 Headers",

The Internet Society, 1998, 20 pages).

Regarding Claim 6,

Gunter as modified by Blott does not disclose writing a

differentiated services codepoint into the packet upon authentication of the

originator.

Nichols, however, discloses writing a differentiated services

codepoint into the packet upon authentication of the originator (Pages 7-9,

Section 3). It would have been obvious to one of ordinary skill in the art at

the time of applicant's invention to incorporate the differentiated services

field of Nichols into the authentication system of Gunter as modified by

Blott in order to enable scalable service discrimination in the Internet

without the need for per-flow state and signaling at every hop.

Regarding Claim 7,

Nichols discloses that writing a differentiated services codepoint

into the packet further comprises writing a differentiated services

codepoint into at least one of a traffic class octet of an IPv6 packet and a

type-of-service field of an IPv4 packet (Pages 7-9, Section 3).

Regarding Claim 9,

Blott discloses that interrogating a database of billing treatment

directives further comprises interrogating the database that includes a

record containing a uniform resource locator of the originator (Page 7,

Paragraphs 36-39).

Nichols discloses that the associated record contains a

differentiated service codepoint (Pages 7-9, Section 3).

Regarding Claim 21,

Nichols discloses a differentiated services codepoint (Pages 7-9,

Section 3).

Regarding Claim 22,

Nichols discloses that the node is operable to write the

differentiated services codepoint into at least one of a traffic class octet of

an IPv6 packet, and a type-of-service field of an IPv4 packet (Pages 7-9,

Section 3).

4.   Claims 24-28 are rejected under 35 U.S.C. 103(a) as being unpatentable over

Gunter in view of Uskela (WO 01/47179 A1).

Regarding Claim 24,

Gunter discloses a telecommunications network operable to transmit a data packet from an originator to a terminating device within the network, comprising:

A first node connected to a data network and operable to receive the packet generated by the originator, the first node operable to execute an authentication algorithm operable to filter the packet for a tag embedded therein, decrypt an encrypted hash in the embedded tag, calculate a hash from an address of the originator in the tag, and authenticate the originator upon a comparison between the decrypted hash and the calculated hash (Column 8, lines 22-40), but does not disclose a second node operable to receive the packet from the first node and transmit the packet to the terminating device.

Uskela, however, discloses a second node operable to receive the packet from the first node and transmit the packet to a terminating device (Page 5, line 28 to Page 6, line 10). It would have been obvious to one of ordinary skill in the art at the time of applicant's invention to incorporate the telecommunications system of Uskela into the authentication system of Gunter in order to prevent spoofing so that one party cannot act as though they are another party.

Regarding Claim 25,

Uskela discloses that the terminating device is a mobile terminal (Page 5, line 28 to Page 6, line 10).

Regarding Claim 26,

Uskela discloses that the network is a mobile telecommunication

system and the second node is a switching system, the network further

comprising:

A base station subsystem (Page 5, line 28 to Page 6, line 10); and

A base transceiver station managed by the base station subsystem,

the terminating device in communication with the transceiver station (Page

5, lien 28 to Page 6, line 10; and Figure 1).

Regarding Claim 27,

Uskela discloses that the first node is a gateway general packet

radio services support node (Page 6, lines 11-30).

Regarding Claim 28,

Gunter discloses that the originator is operable to execute a first

instance of a hashing algorithm that generates the encrypted hash

(Column 7, lines 33-52), the first node further comprising a second

instance of the hashing algorithm operable to calculate the hash from the

address of the originator in the tag (Column 8, lines 22-40).

5.   Claims 29-32 and 36-39 are rejected under 35 U.S.C. 103(a) as being

unpatentable over Gunter in view of Uskela, further in view of Blott.

Regarding Claim 29,

Blott discloses an accounting algorithm executable thereby and

operable to generate a call detail record including a traffic volume count of

a data session including the packet (Page 7, Paragraphs 36-39).

Regarding Claim 30,

Blott discloses that the call detail record further includes the

address of the originator in associated with the traffic volume count (Page

7, Paragraphs 36-39).

Regarding Claim 31,

Gunter discloses that the address of the originator is a uniform

resource locator of the originator (Column 8, lines 22-40).

Regarding Claim 32,

Blott discloses a database having a record maintaining an

identification of the originator and an associated record having a traffic

treatment specification, the first node operable to condition the packet

such that the network forwards the packet according to the traffic

treatment specification (Page 4, Paragraph 22; and Page 7, Paragraphs

36-39).

Regarding Claim 36,

Blott discloses a billing node operable to perform billing procedures

on a call detail record, the billing node including an interface with the first

node and operable to receive a call detail record thereon (Page 9,

Paragraph 50), the billing node operable to execute a billing algorithm

operable to generate a tariff dependent on contents of a traffic volume

container included in the call detail record, the call detail record having the

address of the originator associated therewith, the tariff further dependent

on the address of the originator (Page 9, Paragraph 50).

Regarding Claim 37,

Blott discloses that the tariff is levied against the originator (Page 5,

Paragraph 28; and Page 9, Paragraph 50).

Regarding Claim 38,

Blott discloses that the tariff is levied against the terminating device

(Page 7, Paragraphs 36-39).

Regarding Claim 39,

Blott discloses that the call detail record includes other traffic

volume containers, the tariff dependent on the address of the originator

being independent of the other traffic volume containers (Page 5,

Paragraph 28; and Page 9, Paragraph 50).

6.   Claims 33-35 are rejected under 35 U.S.C. 103(a) as being unpatentable over

Gunter in view of Uskela and Blott, further in view of Nichols.

Regarding Claim 33,

Nichols discloses that a differentiated services codepoint (Pages 7-

9, Section 3).

Regarding Claim 34,

Nichols discloses that the first node is operable to write the

differentiated services codepoint into at least one of a traffic class octet of

an IPv6 packet and a type-of-service field of an IPv4 packet (Pages 7-9,

Section 3).

Regarding Claim 35,

Blott discloses that the first node and the second node are operable

to provide forwarding treatments of the packet across the network

according to service specifications (Page 7, Paragraphs 36-39).

Nichols discloses that the service specifications are associated with

the differentiated services codepoint (Pages 7-9, Section 3).

Conclusion

Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Jeffrey D. Popham whose telephone number is (571)-

272-7215. The examiner can normally be reached on M-F 9:00-5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Emmanuel Moise can be reached on (571)272-3865. The fax phone

number for the organization where this application or proceeding is assigned is 703-

872-9306.

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EMMANUEL L. MOISE
SUPERVISORY PATENT EXAMINER